Drowning

Summary

Drowning[1] is the second leading cause of injury death for Washington children ages 1-17. Drowning death rates are highest in two subgroups of children younger than 18: children 0-4 years old, and adolescents 15-17 years old. Drowning is more common among males than females. The majority of drowning deaths in Washington occur in open water (a lake, river, pond, creek, or ocean waters).

Drowning prevention strategies include care-giver supervision, enforcement of regulations requiring life jackets for children on boats, pool fencing and barriers, swimming lessons that include open water instruction, the use of certified lifeguards in public swim areas, and education and awareness programs for children and adults.

Real Stories of How Washington Children Drowned

Billie, age 4, went to the park with his 10-year-old sister. He ran off to play and was later found in a nearby creek.

Kevin, age 17, was swimming with friends at the lake. He was unable to make it to land and his friends could not reach him in time to help.

Philip, age 9, was fishing with his brother in a raft. He fell out of the raft without a life jacket and could not be rescued.

Rachel, age 3, was playing in the neighbor's yard while her father visited. Rachel wandered off and was found a few minutes later in the bottom of the neighbor's pool, which was not fenced on all sides.

Real Stories of How Washington Drownings Were Prevented

About two months after the life jacket loaner program had been in place at Black Lake in Tumwater, a paddleboat operated by two brothers, aged 9 and 11, and their 11-year-old friend, was flipped over by the wake of a motorboat. Fully clothed, the boys had trouble swimming and the shock of suddenly being in the cold water stunned them. They might have been drowning casualties except for the life jackets from the loan station that each boy wore.

[1] Drowning is a death from a submersion event either with or without involvement of a watercraft. A drowning hospitalization is that which occurs after surviving such an event.

- Supervise children at all times when around water (pools, open water, bath tubs, toilets, hot tubs, garden ponds, and five-gallon buckets). Supervising around water means that the supervisor is focused on the children at all times, is sober, can rescue the children, knows where the nearest phone is, and is within an arm's reach or close enough to provide immediate rescue.
- Wear life jackets as models for children and be prepared in the event of an emergency. Have children wear appropriately sized life jackets while they are on a dock, boat, raft, and inner tube, or around open water.
- Learn CPR and practice what to do in an emergency.
- Teach children how to be safe around water. Insist on adult supervision. Make sure they learn to swim and can tread water for at least 10 minutes. Teach children about swimming in open water, and know what to do in case of emergency. Be aware that swimming lessons and swimming ability do not provide "drown proofing" for children or adults.
- The mixture of alcohol and/or other drugs and water recreation can be lethal. Set firm water safety rules with clear consequences if a child uses alcohol or other drugs around water. Parents should model the avoidance of using alcohol while around water.
- Swim in designated swim areas in the presence of certified lifeguards, if possible.
- Establish water safety guidelines for teens. Warn of risks of cold water, swimming away from shore, and water with currents. Insist on life jacket use when in boats, on rafts, or while swimming in open water. Provide swimming lessons if needed.

- Encourage policies and regulations to address safety needs at beaches, residential pools, and while boating:
  - Enforce regulations requiring life jackets for children on boats.
  - Encourage boating safety courses.
  - Enforce laws that prohibit alcohol and other drug consumption by adolescents and boat operators.
- Encourage adoption of the National Uniform Building Code standard that requires four-sided fencing and other adequate barriers around private pools.
- Promote lifeguard availability and training programs for people who supervise children around water.
- Start a life jacket loan program in your community. Encourage public pools and beaches to have policies that allow children to wear life jackets, at least during family swim times.
- Provide survival strategies for open water and teach life jacket use as part of swimming lessons. Swimming lessons should be developed specifically for teens and culturally tailored for specific populations. Parent education should be added focusing on supervision, as well as safety issues for open water and life jacket use.
- Begin drowning prevention campaigns in April/May and run through the summer.
- Work with health care providers to counsel parents, children and teens about drowning risks and prevention.

Number of Injuries[2]

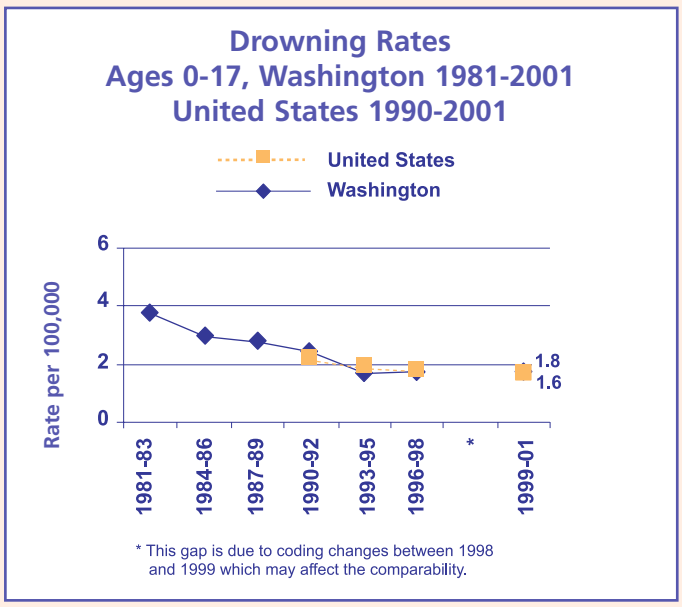
During 1999-2001, drowning was the second leading cause of injury death for Washington children 1-17 years old. Drowning injuries among Washington children 0-17 years old account for an annual average of:

- 27 deaths.
- 30 hospitalizations.
- About 110 visits to a hospital emergency department.

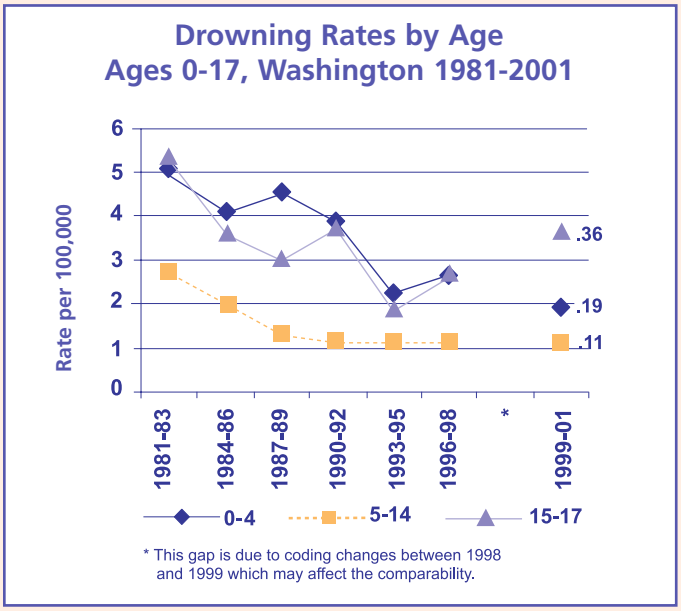
Time Trends[3]

From the three-year time period of 1981-83 to 1999-2001, there was a statistically significant decline in the drowning death rate for Washington children 0-17 years old, from 3.8 to 1.8 per 100,000. This represents about a 54 percent decrease in the drowning rate.

Drowning death rates in Washington have been similar to national rates since 1990.[4]



Both the 0-4 and 5-14 age groups showed a statistically significant decline in drowning deaths. There has been a significant increase in teen (15-17 years old) drowning deaths during 1993-2001.



Intent

The vast majority of drownings resulting in death (95 percent) and hospitalization (98 percent) were unintentional.

[2] Unless otherwise specified, data are for drowning injuries among children 0-17 years old during1999-2001, except in the age and gender section, which are for 1997-2001. Rates are per 100,000 children who are Washington residents.

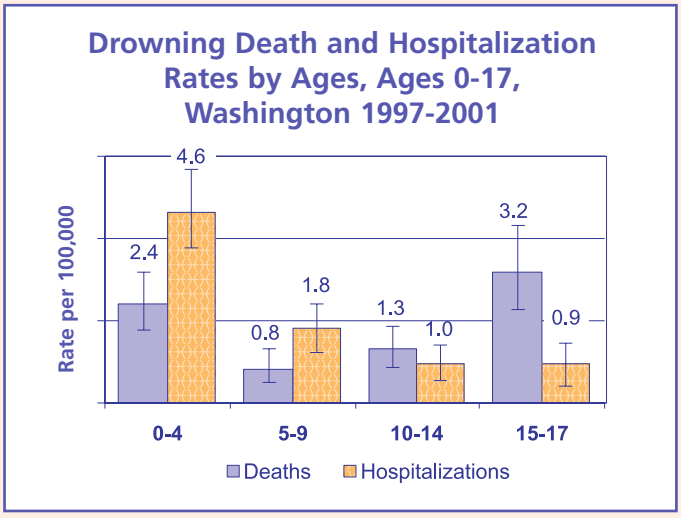
[3] See Comparability Ratio section in Appendix D.

[4] National injury death rates for children 0-17 years old are not available prior to 1990.

Age and Gender

During 1997-2001, the highest drowning death rates were among those 0-4 and 15-17 years old.

Males had a drowning death rate that was four times higher than females. Males 15-17 years old had a drowning death rate that was eight times higher than females the same age.

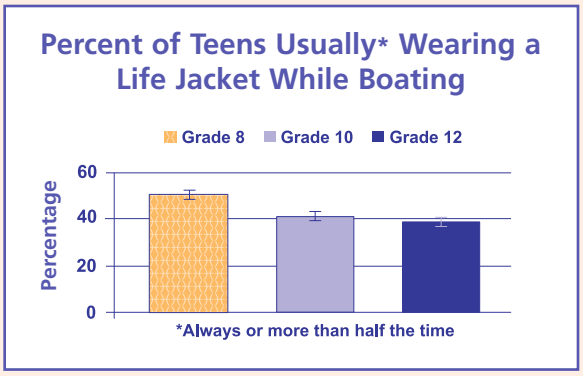


The drowning hospitalization rate was highest for those 0-4 years old. Males, 0-17 years old, had a hospitalization rate for drowning that was two times higher than females.

Life Jacket Usage

Data from the 2002 Healthy Youth Survey show that about 50 percent of eighth graders report wearing a life jacket more than half the time while boating. By twelfth grade, about only four out of ten reports wearing a life jacket while boating.

Data from an observational study in 2000 of Washington children 0-14 years old showed that 1,106 out of 1,505 (about 77 percent) of children were wearing a life jacket while boating.



Circumstances Surrounding Deaths From Washington Child Death Review Data

Local child death review teams reviewed 72 of the 80 drowning deaths during 1999-2001. Key findings include:

- The majority (71 percent) of drowning deaths occurred in open water (a lake, river, pond, creek, or ocean waters).
- Thirty-one (43 percent) of the children were swimming, playing in the water, or on a rubber raft or inner tube in open water or a pool just prior to the drowning. Eighteen (25 percent) were playing or sitting near the water while six (8 percent) were boating. Eight children (11 percent) drowned in a bathtub.
- Infants were most likely to drown in a bathtub.
- Children 1-4 years old most often drowned in open water, although most of the swimming pool deaths occurred in this age group.
- None of the pools or hot tubs where a child drowned had a locked gate.
- A lifeguard was present in only three (5 percent) of the 58 drowning deaths that occurred in open water or a pool.
- Only two children (3 percent) were known to be wearing a life jacket: one was wearing a life jacket that was too big for him/her, and one was wearing a life jacket, but was pulled under the water while holding on to a rope. None of the six children boating had on a life jacket.
- Signs warning of hazards were posted in eight (14 percent) of the 58 drowning deaths that occurred in open water or a pool.
- Impairment by or use of alcohol and/or other drugs was a factor in seven (10 percent) of the deaths. The youth was the one impaired in six of the deaths, the supervising adult in one, and another individual in one[5].
- The review teams had access to information about the children's swimming ability for 44 of the children: 22 of the children could swim, while 22 could not.
- Teams concluded that 81 percent of the 72 drowning deaths were preventable, 15 percent were not preventable, and the review teams were unable to determine preventability for 4 percent.

[5] Persons impaired may total more than the number of deaths because more than one party could have been impaired.